IDRC CANADA FEATURE

A features service about science, technology, and development

Approx. 600 words IDRC-F283e

KENYAN RESEARCHERS STUDY LINK BETWEEN SUGAR AND CARIES

Gerry Toomey

OTTAWA, IDRC -- Kenyans are consuming three times more sugar now than at Independence in 1963 and researchers at the Kenya Medical Research Institute want to know how if this great leap in sugar consumption is affecting children's teeth.

Despite the serious dental damage that sugar is known to cause, there is little information available on the prevalence of dental caries in Kenya over the years. So, researchers at the Institute, led by Dr. Firoze Manji, have begun an investigation of the problem. Their three-year study is supported by funds from Canada's International Development Research Centre (IDRC).

The bulk of the work will involve a study of some 2800 school children between the ages of 5 and 18 in Nairobi and an equal number in a rural area. The investigation will cover all students in each of the selected schools.

The researchers hope that the data they accumulate will provide a better picture of the link between sugar consumption and caries. This will help them make recommendations to the government which, in its 1984-88 five-year development plan, committed itself to seeking ways to promote dental health.

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE ● Communications Division, Box 8500, Ottawa, Canada, K1G 3H9
Telephone (613) 236-6163 ● Cable: RECENTRE ● Telex: 053-3753

One recent study in Japan shows, as might be expected, that the incidence of caries among youngsters is directly related to the availability of sugar. Further evidence suggests that, depending on fluoride levels in water supplies, dental caries can be kept to a low level if the amount of sugar consumed each day is less than 50 grams.

Of even more significance than the quantity of sugar eaten or drunk is the frequency of consumption. Children should beware of the dangers of snacking on sweets. There is a greater risk of caries if sugar-laden foods are eaten both between meals and at meal times than if they are eaten only at meals.

Each child in the Kenya Medical Research Institute's study will be given a dental examination and a detailed record of the state of each tooth (whether in good condition, decayed, filled or extracted) will be made. The researchers will refer any children in need of treatment to the nearest dental clinic.

Each school survey is to be followed up by the visit of a mobile dental clinic to provide emergency treatment and, where feasible, dental students will assist as part of their training. All the school children in the survey will be examined annually for three years to determine the incidence of caries.

Another main component of the study will be to collect local and national information on the availability and consumption of sugar. The Kenya Sugar Authority will cooperate in this part of the exercise. The researchers will also gather information on the sugar content of various commodities and will examine the individual consumption habits of a subsample of the school children participating in the main tooth decay study.

Once all the data are in, the researchers will be able to correlate the extent of dental carries with the amounts of sugar consumed. This will make it possible to predict future tooth decay in Kenya as sugar consumption patterns change, and to project future needs for dental facilities and personnel. Such

projections are especially important for Kenya and other countries where there is a shortage of skilled dental workers.

The high cost of dental equipment and supplies is a drain on foreign exchange for Kenya. The researchers hope to provide the government with some of the key information needed to formulate policies aimed at preventing or reducing tooth decay. Prevention is probably the least expensive means of controlling caries.

-30-

May 1984